



Yum

Food Supply on the Trip to Mars
Crew Two





Overview

- Current food on the ISS
- Brainstorming
- Food Filter
- Food that we plan to bring on the trip to Mars
- How the food will be contained
- How it will be fit onto the spacecraft

Current Food on the ISS



- On the ISS astronauts need a balanced supply of vitamins and minerals
- They eat; fruits, nuts, peanut butter, chicken, beef, seafood, (brownies, and candy sometimes)
- They drink; water, coffee, tea, orange juice, fruit punches, and lemonade
- Food comes in disposable packages thrown away once eaten
- An astronaut on the ISS eats about 1.83 lbs of food a day; about 0.27 lbs of that is just packaging

Brainstorming

- Foods should be similar to on the ISS
- Foods should have more iron in them to decrease fatigue
- To contain the food we should have a fridge in the living area powered by solar panels
- Food Filter...

Food Filter

- Has 5 filters; breakfast, lunch, dinner, dessert, and snack
- Like a topping bar, you press a button that has lunch, dinner, snack, dessert, breakfast
- When you choose what you want, you see what's available in the pantry, you choose that
- Then, you can choose what you want to add onto that, like toppings
- Finally, the order will be sent to a computer, and the food will come

Food Filter: How it Works

- Connected to the fridge by a large tube w/ conveyor belt that brings food through
- The types of food that are brought out depend on what you choose:
Breakfast: dried fruit, bread
Lunch: beef, chicken, bread
Dinner: bread, chicken, beef
Dessert: brownies
Snack: nuts, dried fruit, granola bars



Food Plan for the Mars Trip

- Since this trip will take so long, there needs to be enough food for the trip; we would need around 854 lbs of food per astronaut if the trip were to take a year and a half
- The foods are; dried fruit, nuts, crackers (unsalted), bread, beef, chicken, green vegetables, (brownies sometimes)
- The drinks are: water, coffee, fruit punch, and juices



How will it be Contained?

- A fridge and a microwave will be used because the rocket group has agreed to put solar panels up to get energy for it
- The fridge is going to be a 3ft.x3ft. x9ft. to optimize vertical height because the astronauts can float up
- Each food item will have a plastic container around it until it is time to eat
- Microwave will be 2ft.x2ftx1ft.

Where will it be?



- The food storage (fridge) will be in the living place (the corner of the rocket because everywhere is living space)
- The solar panels powering the fridge and the microwaves will be on the outside of the spacecraft

References

- https://www.google.com/search?q=fruit&rlz=1C1CAFA_enUS656US656&source=Inms&tbm=isch&sa=X&ved=0ahUK Ewi3rqfpxt7KAhVINT4KHZ7HAsgQ_AUIBygB&safe=active&ssui=on#imgrc=KpnAzm sZFluUxM%3A
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That's All!
Any questions?

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